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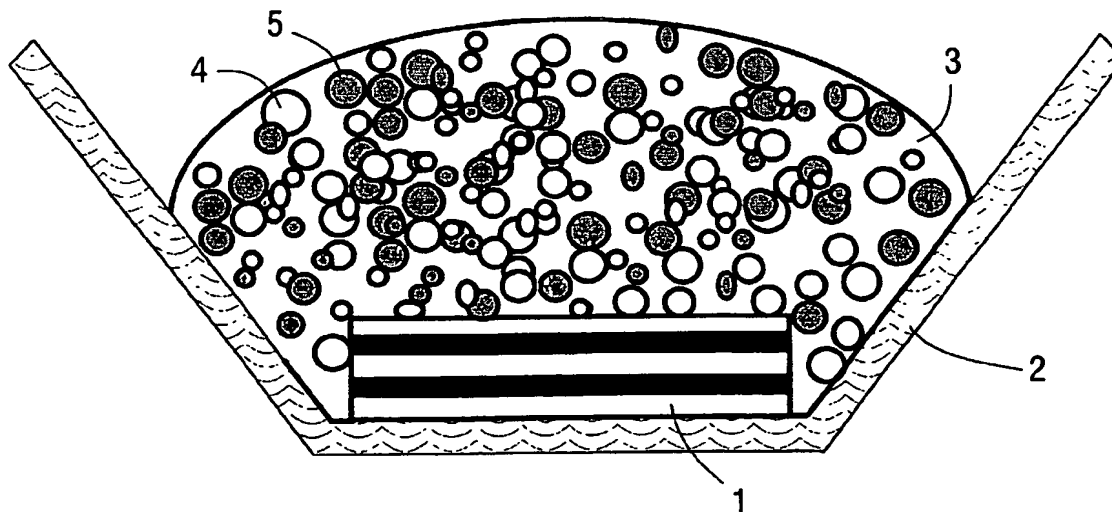
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- (71) Applicant (for DE only): **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH** [DE/DE]; Stein-
damm 94, 20099 Hamburg (DE).
- (71) Applicant (for all designated States except DE, US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (71) Applicant (for all designated States except US): **LU-MILEDS LIGHTING U.S., LLC** [US/US]; 370 West Trimble Road, MS 91 UK, San Jose, CA 95131 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SCHMIDT, Peter** [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE); **JUESTEL, Thomas** [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE); **MAYR, Walter** [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE); **BAUSEN, Hans-Dieter** [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE); **SCHNICK, Wolfgang** [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE); **HOEPPE, Henning** [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).
- (74) Agent: **VOLMER, Georg**; Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).
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[Continued on next page]

(54) Title: LIGHT-EMITTING DEVICE COMPRISING AN EU(II)-ACTIVATED PHOSPHOR



(57) Abstract: The invention concerns a light emitting device comprising a light emitting structure capable of emitting primary light of a wavelength less than 480 nm and a luminescent screen comprising a phosphor of general formula $(\text{Sr}_{1-a-b}\text{Ca}_b\text{Ba}_c\text{Mg}_d\text{Zn}_e)\text{Si}_x\text{N}_y\text{O}_z:\text{Eu}_a$, wherein $0.002 \leq a \leq 0.2$, $0.0 \leq b \leq 0.25$, $0.0 \leq c \leq 0.25$, $0.0 \leq d \leq 0.25$, $0.0 \leq e \leq 0.25$, $1.5 \leq x \leq 2.5$, $1.5 \leq y \leq 2.5$ and $1.5 < z < 2.5$. The invention also concerns a luminescent screen comprising a phosphor of general formula $(\text{Sr}_{1-a-b}\text{Ca}_b\text{Ba}_c\text{Mg}_d\text{Zn}_e)\text{Si}_x\text{N}_y\text{O}_z:\text{Eu}_a$, wherein $0.002 \leq a \leq 0.2$, $0.0 \leq b \leq 0.25$, $0.0 \leq c \leq 0.25$, $0.0 \leq d \leq 0.25$, $0.0 \leq e \leq 0.25$, $1.5 \leq x \leq 2.5$, $1.5 \leq y \leq 2.5$ and $1.5 < z < 2.5$. The invention also concerns a phosphor of general formula $(\text{Sr}_{1-a-b}\text{Ca}_b\text{Ba}_c\text{Mg}_d\text{Zn}_e)\text{Si}_x\text{N}_y\text{O}_z:\text{Eu}_a$, wherein $0.002 \leq a \leq 0.2$, $0.0 \leq b \leq 0.25$, $0.0 \leq c \leq 0.25$, $0.0 \leq d \leq 0.25$, $0.0 \leq e \leq 0.25$, $1.5 \leq x \leq 2.5$, $1.5 \leq y \leq 2.5$ and $1.5 < z < 2.5$.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05B33/14 C09K11/79

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	VAN KREVEL J W H ET AL: "Long wavelength Ceemission in Y-Si-O-N materials" JOURNAL OF ALLOYS AND COMPOUNDS, ELSEVIER SEQUOIA, LAUSANNE, CH, vol. 268, no. 1-2, 27 March 1998 (1998-03-27), pages 272-277, XP004130688 ISSN: 0925-8388 the whole document	1-11
A	EP 0 155 047 A (PHILIPS NV) 18 September 1985 (1985-09-18) the whole document	1-11
P,A	US 2003/094893 A1 (FIEDLER TIM ET AL) 22 May 2003 (2003-05-22) the whole document	1-11
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☒ Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Doslik, N

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Information on patent family members

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Location No

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